



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,805	08/22/2001	Tatuya Ninomiya	500.33021CX5	8027

20457 7590 07/28/2003

ANTONELLI, TERRY, STOUT & KRAUS, LLP  
1300 NORTH SEVENTEENTH STREET  
SUITE 1800  
ARLINGTON, VA 22209-9889

EXAMINER

PATEL, HETUL B

ART UNIT	PAPER NUMBER
----------	--------------

2186

DATE MAILED: 07/28/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

10

# Office Action Summary

Application No.

09/933,805

Applicant(s)

NINOMIYA ET AL.

Examiner

Hetul Patel

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 21,23,24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21,23,24 and 26 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/819,625.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Specification***

1. The title of the invention is very broad and not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Objections***

2. Claim 23 is objected to because of the following informalities: Claim 23 is depending on the claim 22 but claim 22 has been canceled in the amendment made on 05/23/2003. Dependency of the claim 23 has been changed from 22 to 21. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 21, 23, 24 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Hashemi et al., hereinafter Hashemi (USPN: 5,337,414).

As for claims 21 and 24, Hashemi taught the invention as claimed, including a storage system comprising:

A plurality of host adaptors connected to at least one host device, which from interfaces for the host device (e.g. see figure 1, elements 4a-d and 8c1 and 8c2, column 3, lines 57-60 and 66-68; column 4, lines 1, 11-15 and column 9, lines 4-9);

A plurality of storage devices for storing therein data received from the host device (e.g. see column 9, lines 30-34);

A plurality of disk adaptors each connected to one of said storage devices, which form interfaces for said storage devices (e.g. see figure 1, elements 8d1 and 8d2, column 4, lines 27-43; column 9, line 62 and column 10, lines 24-30);

A cache (a plurality of caches) for temporarily storing therein data transferred between said plurality of host adaptors and said plurality of disk adaptors (e.g. see figure 1a, elements 24c1 or 24c2 or 24d1 or 24d2);

Two buses connected to said plurality of host adaptors, said plurality of disk adaptors, and said cache, and which operate as a pair of buses for transferring data among said plurality of host adaptors, said plurality of disk adaptors, and said cache, wherein each bus in said two buses is adapted to transfer different data (e.g. see figure 1a, elements 6a-b), and a memory for storing a status of which of said two buses is available for use due to a failure in the other of said two buses (e.g. see column 9, lines 28-41).

As for claims 23 and 26, Hashemi further taught said memory can be referred to by an external processor (e.g. see column 9).

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 21 and 24 are rejected under the judicially created doctrine of double patenting over claims 1-2 of U. S. Patent No. 6,581,128 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

The applicant discloses a storage system comprising host adaptors, storage devices, disk adaptors, cache(s) and two buses having a transfer ability larger than one of said buses as described in the applicant's claims 21 and 24. It further includes that the said memory can be referred to by an external processor as described in the applicant's claims 23 and 26.

The applicant claimed identical storage system in the claims 1 and 2 of the U. S. Patent No. 6,581,128, wherein each bus in said two buses is adapted to transfer

Art Unit: 2186

different data. It is clearly obvious that the combined transfer ability of said two buses is larger than any one of said two buses as claimed in claims 21 and 24 of this application.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application, which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

### **Conclusion**

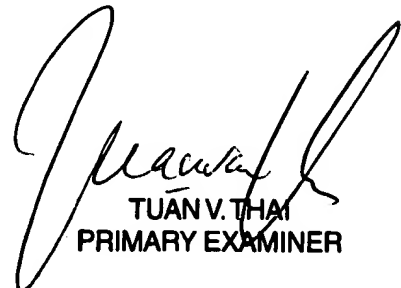
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hetul Patel whose telephone number is (703) 305-6219. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (703) 305-3821. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-6606 for regular communications and (703)308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

HBP  
July 23, 2003



TUAN V. THAI  
PRIMARY EXAMINER